Table 1. DHS Drinking Water Notification Levels		
Notes*	**Chemical**	**Notification Level (milligrams per liter)**
1	Boron**	1
2	n-Butylbenzene	0.26
3	sec-Butylbenzene	0.26
4	tert-Butylbenzene	0.26
5	Carbon disulfide	0.16
6	Chlorate**	0.8
7	2-Chlorotoluene	0.14
8	4-Chlorotoluene	0.14
9	Dichlorodifluoromethane (Freon 12)**	1
10	1,4-Dioxane**	0.003
11	Ethylene glycol	14
12	Formaldehyde**	0.1
13	Isopropylbenzene**	0.77
14	Manganese**	0.5
15	Methyl isobutyl ketone (MIBK)**	0.12
16	Naphthalene	0.017
17	Nitrosamines (a single nitrosamine, or two or more in combination)***	0.00001
18	Perchlorate**	0.006
19	n-Propylbenzene	0.26
20	Tertiary butyl alcohol (TBA)**	0.012
21	1,2,3-Trichloropropane (1,2,3-TCP)**	0.000005
22	1,2,4-Trimethylbenzene**	0.33
23	1,3,5-Trimethylbenzene**	0.33
24	Vanadium**	0.05

* Notes include toxicological endpoint, references, history, and other information, and are presented below
** Chemical was detected two or more times in at least one drinking water source 2002-2004.
***N-Nitrosodimethylamine was detected two or more times 2002-2004

Table 2. Response Levels (at which DHS recommends removal of a source from service)		
Chemical	**Toxicological Endpoint**	**Response Level (Multiples of Notification Level)**
1,4-Dioxane TBA 1,2,3-TCP	Cancer risk	100 times the NL
Nitrosamines	Cancer risk	20 times the NL
All others	Non-cancer	10 times the NL

DHS DRINKING WATER NOTIFICATION LEVELS

AN OVERVIEW

Contents

History of Notification Levels

DHS has established health-based advisory levels, called “notification levels” (referred to as “action levels" through 2004), as needed since the early 1980s. These have been used to provide information to public water systems and others about certain non-regulated chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than these levels, certain requirement and recommendations apply.

Generally, notification levels have been established in response to actual contamination of drinking water supplies, *e.g.*, perchlorate. However, notification levels for a number of chemicals were established in anticipation of possible contamination, such as from a hazardous waste site containing many pesticides (in the 1980s), or from a Superfund site (in the 2000s).

Chemicals for which notification levels are established may eventually be regulated by MCLs (through a formal regulatory process), depending on the extent of contamination, the levels observed, and the risk to human health. Most, however, have not proceeded to MCLs.

Once established, a notification level generally stays in place, unless it is replaced by an MCL. On occasion, though, DHS has revised the numeric value of an individual advisory level to reflect new risk assessment information on the particular chemical. Generally after a decade or so, if no MCL has been adopted and the need for the notification level has passed, DHS will archive the notification level. Archived advisory levels may nevertheless be updated to reflect any new risk information that may become available.

To date, of the 87 chemicals for which notification levels have been established; 38 now have MCLs (see regulated contaminants with prior advisory levels),

Of the remaining 49 chemicals, 24 are chemicals with current notification levels and 25 are chemicals with archived advisory levels.

History of DHS' Notification Levels (Number of Chemicals)					
Decade Established	Notification Levels	Now with MCLs[1]	Archived[2]	Current	Current & Detected (2002-04)
1980s	60	37	22	1	1
1990s	11	1	3	7	7
2000s	16	0	0	16	6
TOTAL	87	38	25	24	14

[1]With an adopted MCL, the notification level is no longer used
[2]DHS will generally archive a notification level after 10 years

Determination of Notification Levels

Notification levels are calculated using standard risk assessment methods (see Appendix 1) for non-cancer and cancer endpoints, and typical exposure assumptions, including a 2-liter per day ingestion rate, a 70-kilogram adult body weight, and a 70-year lifetime.

- For chemicals that are not considered carcinogens, the notification level is derived from the no observed adverse effect level (NOAEL), adjusted by appropriate factors to take into account uncertainties in the available data. An estimate of drinking water's contribution to total exposure to the contaminant is also included, referred to as the relative source contribution.

- For those that are considered carcinogens, the notification level is considered to pose *"de minimis*" risk, *i.e.,* a theoretical lifetime risk of up to one excess case of cancer in a population of 1,000,000 people—the 10^{-6} risk level. (In that population, approximately 250,000-300,000 cases of cancer would be anticipated to occur naturally.) In one instance, DHS established a notification level above the 10^{-6} risk level (for nitrosamines).

On occasion, the chemical may not be detectable as low as the notification level by usual laboratory analytical methods. In this case, detectability prevails, and DHS' approach is to consider a detectable quantity as over the notification level until a more sensitive method is available.

Monitoring for Chemicals with Notification Levels

Monitoring by public water systems for chemicals with notification levels is not required, except for unregulated chemicals requiring monitoring. Recycled water projects for indirect potable reuse and systems proposing to use extremely impaired sources may need to monitor for certain chemicals with notification levels [see draft regulations for Groundwater Recharge Reuse Project (GRRPs)].

Should a chemical be detected over its notification level, DHS recommends a confirmation sample as soon as possible, with the average value compared to the notification level.

DHS recommends tracking the presence of the chemical by follow-up sampling at a reasonable frequency.

Notification Levels (Table 1)

Notification levels are advisory in nature and not enforceable standards. However, if a chemical is present over its notification level, the following apply:

- **Required by Statute: Local Government Notification—**Health and Safety Code §116455 requires a drinking water system to notify the governing body of the local agency in which users of the drinking water reside (*i.e.*, city council and/or county board of supervisors) when a chemical in excess of a notification level is discovered in a drinking water source. See Appendix 2.

- **Consumer Notice (Recommendation)—**If a chemical is over its notification level in drinking water that is provided to consumers, DHS recommends that the utility inform its customers and consumers about the presence of the contaminant, and about the health concerns associated with exposure to it. If the utility decides to provide consumer notice, it may want to consider using its annual Consumer Confidence Report, a separate mailing, or other method

Response Levels—for removal of a drinking water source from service (Table 2)

DHS recommends that the drinking water system take the source out of service if a chemical is present at levels considerably higher than its notification level. The specific recommendation depends on the toxicological endpoint that provided the basis for the notification level. DHS recommends source removal when the chemical's concentration is:

- 10 times the notification level, if it is based on non-cancer endpoints. A level greater than 10 times the notification level reduces the margin of safety provided.

- 100 times the notification level, if it is based on cancer risk and established at the 10^{-6} risk level. A level 100 times the notification level corresponds to a theoretical lifetime risk of up to one excess case of cancer in 10,000 people, the upper value of the 10^{-6} to 10^{-4} risk range typically allowed by regulatory agencies. If the notification level is established at a risk greater than 10^{-6}, as it is for nitrosamines, the response level for this recommendation is adjusted downward accordingly, so that it corresponds to the 10^{-4} risk level.

Notes for Chemicals with Notification Levels

1. Boron: ENDPOINT: Noncancer—decreased fetal weight (developmental) in rats. REFERENCE: US EPA Integrated Risk Information System (IRIS), 2004. Boron and Compounds. The last revision for the oral RfD was August 8, 2004. HISTORY: Notification level first established at 1 mg/L at an uncertain date but thought to be early to mid-1990s. ADDITIONAL INFORMATION: The relatively large number of sources with boron detections reflects its natural occurrence.

2. n-Butylbenzene: ENDPOINT: Noncancer—increased kidney weight in rats, using cumene (isopropylbenzene) as a surrogate. REFERENCES: (1) National Center for Environmental Assessment (NCEA), 1997, Risk Assessment Issue Paper for: Derivation of Provisional Chronic RfDs for n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, and n-Propylbenzene. NCEA, US EPA (97-009/6-5-97) and (2) Memorandum from R. Howd, Office of Environmental Health Hazard Assessment (OEHHA), to D. Spath, DHS, "Proposed Action Level for n-Propylbenzene," October 27, 2000. HISTORY: Notification level was first established as 0.045 mg/L (date uncertain), and revised to 0.07 mg/L in 2000, and to current level in 2003.

3. sec-Butylbenzene: ENDPOINT: Noncancer—increased kidney weight in rats, using cumene (isopropylbenzene) as a surrogate. REFERENCE: OEHHA, 2000. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Levels for sec-Butylbenzene and tert-Butylbenzene," October 27, 2000.

4. tert-Butylbenzene: ENDPOINT: Noncancer—increased kidney weight in rats, using cumene (isopropylbenzene) as a surrogate. REFERENCE: OEHHA, 2000. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Levels for sec-Butylbenzene and tert-Butylbenzene," October 27, 2000.

5. Carbon disulfide: ENDPOINT: Noncancer—decreased motor conduction velocity in people. REFERENCE: OEHHA, 2001. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for Carbon Disulfide," July 5, 2001.

6. Chlorate: ENDPOINT: Noncancer—pituitary gland vacuolization & thyroid gland depletion in rats. REFERENCE: OEHHA, 2002. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for Chlorate," January 7, 2002. HISTORY: Notification level was established in 2002. ADDITIONAL INFORMATI0N: Notification level is derived from standard risk assessment methods with RSC = 0.8.

7. 2-Chlorotoluene: ENDPOINT: Noncancer—decrease in body weight gain in rats. REFERENCE: IRIS, 1990. 2-Chlorotoluene. The last revision for oral RfD was February 1, 1990. OEHHA concurred with the notification level via a June 7, 2000 memorandum.

8. 4-Chlorotoluene: See notification level for 2-chlorotoluene, which is used as a surrogate.

9. Dichlorodifluoromethane: ENDPOINT: Noncancer—reduced body weight in rats. REFERENCE: IRIS, 1995. Dichlorodifluoromethane. The last revision for the oral RfD

was November 1, 1995. HISTORY: Notification level was initially established at 1 mg/L (exact date uncertain, but likely mid-1990s).

10. 1,4-Dioxane: ENDPOINT: Cancer in rats, mice, and guinea pigs. REFERENCE: IRIS, 1990. 1,4-Dioxane. The last revision for oral slope factor for cancer risk was September 1, 1990. OEHHA concurred with the notification level via a March 25, 1998 memorandum. HISTORY: Notification level established in 1998.

11. Ethylene glycol: ENDPOINT: Noncancer—kidney toxicity in rats. REFERENCE: IRIS, 1989, Ethylene glycol. The last revision for the oral RfD was September 1, 1989. HISTORY: Notification level was first established in May 2002.

12. Formaldehyde: ENDPOINT: Noncancer by ingestion—reduced weight gain, histopathology in rats. REFERENCE: IRIS, 1990. Formaldehyde. The last revision for the oral RfD was September 1, 1990. HISTORY: Notification level first established in 1983 as 30 µg/L, and revised to current level in 2000. ADDITIONAL INFORMATION: Notification level is derived from standard risk assessment methods, with MF = 10 (because of formaldehyde's cancer risk associated with inhalation exposures, as shown in a variety of animals studies). Though rarely detected in drinking water sources, formaldehyde is of interest because of its possible production as a disinfection byproduct from the use of ozone and/or hydrogen peroxide.

13. Isopropylbenzene: ENDPOINT: Noncancer—increased kidney weight in rats. REFERENCE: IRIS, 1997. Cumene (also known as Isopropylbenzene). The last revision for the oral RfD was August 1, 1997. OEHHA concurred with the notification level via a November 1, 2000 memorandum. HISTORY: Notification level was first established in 2000.

14. Manganese: ENDPOINT: Noncancer—neurotoxicity, based on human data. REFERENCE: IRIS, 1996. Manganese. The last revision for the oral RfD was May 1, 1996. HISTORY: AL was established on March 20, 2003. ADDITIONAL INFORMATI0N: Notification level is derived from standard risk assessment methods with RSC = 0.3. Manganese has an enforceable secondary MCL of 0.05 mg/L that is based upon aesthetics. Secondary MCLs apply only to community water systems. The relatively large number of sources with manganese detections reflects its natural occurrence.

15. MIBK: ENDPOINT: Noncancer—increased kidney and liver weight, kidney pathology in rats. REFERENCE: OEHHA, 1999. Memorandum from G. Alexeeff, 0EHHA, to D. Spath, DHS, "Proposed Action Level for Methyl Isobutyl Ketone," December 29, 1999. HISTORY: Notification level established in 2000.

16. Naphthalene: ENDPOINT: Noncancer—decreased body weight in rats. REFERENCE: IRIS, 1998. Naphthalene. The last revision for the oral RfD was September 17, 1998. OEHHA concurred with the notification level via an April 20, 2000 memorandum. HISTORY: Notification level was first established in 2000 at a concentration of 0.17 mg/L, and revised to current level in 2005. ADDITIONAL INFORMATION: Subsequent to the establishment of the notification level, naphthalene was identified by OEHHA in 2002 as a chemical known to the state to cause cancer for purposes of Proposition 65, and was identified by OEHHA in 2004 as a toxic air

contaminant and potential carcinogen when inhaled. Notification level is derived from standard risk assessment methods, with MF = 10 (because of naphthalene's cancer risk associated with inhalation exposures, as shown in animals studies).

17. Nitrosamines (a single nitrosamine or two or more in combination): ENDPOINT: Cancer in a variety of laboratory animals. REFERENCE: the 10^{-6} cancer risk level is 0.000002 mg/L for N-nitrosodimethylamine (NDMA), 0.000001 mg/L for N-nitrosodiethylamine (NDEA), and 0.000005 mg/L for N-nitrosodi-n-propylamine (NDPA) derived from the 10^{-5} lifetime cancer risk levels in 22 CCR §12705, which also includes many other cancer-causing nitrosamines. HISTORY: Notification level for NDMA was first established in 1998, and revised to 0.00001 mg/L in 2002, a risk level of 5×10^{-6}. NDMA was found as a drinking water contaminant and was also found to be produced in drinking water treatment. The notification level for NDEA was established in September 2004 at the same concentration as NDMA (0.00001 mg/L), a risk level of 1×10^{-5}, in response to inquiries from DHS drinking water program staff related to resin use. In April 2005, DHS considered adding another notification level for NDPA (related to resin use), which would have been at the same level (0.00001 mg/L) a risk of 2×10^{-5}. Instead, DHS determined that a notification level for the general category for "nitrosamines" would be most effective in dealing with nitrosamines introduced into the water supply from the use of disposable resins for the removal of other contaminants during water treatment, as well as any nitrosamines that were present in drinking water sources. A parenthetical was added to ensure that any single nitrosamine, or two or more in combination would be covered by the notification level, to take into account (1) the carcinogenicity of the many individual nitrosamines, (2) the cumulative nature of their potential for carcinogenicity, (3) the possibility that resin manufacturers may utilize chemical mixtures that may introduce more than a single nitrosamine, and (4) that there are a number of potential nitrosamines that may find their way into drinking water treatment, particularly since disposable resin development for use drinking water treatment appears to be increasing. ADDITIONAL INFORMATION: The notification level of 0.00010 mg/L is used to approximate the cancer risk of NDMA, NDEA, and NDPA of 1 to 5×10^{-5}, rather than the usual 1×10^{-6}, because of the very low detection level, and it is used as a reasonable health protective level for other nitrosamines. DHS believes this to be appropriate because nitrosamines may be released from resins used for removal of other chemical contaminants in drinking water treatment, as discussed above. Earlier studies showed that NDMA may be produced in drinking water treatment not associated with chemical contaminant removal, particularly in some surface water treatment situations. For more information, see DHS' NDMA website. Source removal ("response level") is recommended at 20 times the notification level, somewhat lower that the 100-fold increase for other carcinogens, to recognize that the risk at the notification level is somewhat higher than the *de minimis* risk level used for notification levels for other carcinogens, and to be consistent at a 10^{-4} risk level for the response level recommendation.

18. Perchlorate: ENDPOINT: Noncancer—thyroid gland effects, based on humans. REFERENCE: Public health goal for perchlorate in drinking water, OEHHA, March 2004. HISTORY: Notification level first established in 1997 at 0.018 mg/L, based on the upper value of the 0.004- to 0.018-mg/L range, calculated from US EPA's 1992-1995 "provisional" reference dose (RfD) for perchlorate. In January 2002, following release of a revised US EPA external review draft perchlorate RfD that corresponded to 0.001

mg/L in drinking water, DHS concluded that its notification level needed to be revised downward and reduced it to 0.004 mg/L, the lower end of US EPA's 1992/1995 range of values, and the same as the analytical detection limit for purposes of reporting. It was revised to the current notification level in March 2004. ADDITIONAL INFORMATION: See DHS' perchlorate website.

19. n-Propylbenzene: ENDPOINT: Noncancer—increased kidney weight in rats, using cumene (isopropylbenzene) as a surrogate. REFERENCE: OEHHA, 2000. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for n-Propylbenzene," October 27, 2000. HISTORY: Notification level established in 2000.

20. Tertiary butyl alcohol: ENDPOINT: Cancer—renal adenomas and carcinomas in male rats, thyroid adenomas in female mice. REFERENCE: OEHHA, 1999. Memorandum from G. Alexeeff, OEHHA, to D. Spath, DHS, "Expedited Evaluation of Risk Assessment for Tertiary Butyl Alcohol in Drinking Water," June 2, 1999. HISTORY: Notification level established in 1999.

21. 1,2,3-TCP: ENDPOINT: Cancer—benign and malignant tumors in multiple sites in rats. REFERENCE: HEAST, 1997. Health Effects Advisory Summary Tables (HEAST), FY 1997 Update, US Environmental Protection Agency (US EPA), Solid Waste and Emergency Response, 9200.6-303 (97-1), EPA-540-R-97-036, July 1997. OEHHA concurred with the notification level for 1,2,3-TCP via a May 28, 1999 memorandum. HISTORY: Notification level established in 1999. ADDITIONAL INFORMATION: See DHS' 1,2,3-TCP website

22: 1,2,4-Trimethylbenzene: ENDPOINT: Noncancer—increased serum phosphorus levels in rats. REFERENCE: OEHHA, 2001. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene," May 24, 2001. HISTORY: Notification level established in 2001.

23. 1,3,5-Trimethylbenzene: ENDPOINT: Noncancer—increased serum phosphorus levels in rats. REFERENCE: OEHHA, 2001. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene," May 24, 2001. HISTORY: Notification level established in 2001.

24. Vanadium: ENDPOINT: Noncancer—developmental and reproductive effects in rats. REFERENCE: OEHHA, 2000. Memorandum from R. Howd, OEHHA, to D. Spath, DHS, "Proposed Action Level for Vanadium," August 24, 2000. HISTORY: DHS established the notification level in 2000 at 0.015 mg/L, and revised it in late 2000 or early 2001 to 0.05 mg/L, changing the RSC in standard risk assessment methods from the default value of 0.2 to 0.6, to take into account the high number of vanadium detections—reflecting its natural occurrence—and the likelihood that drinking water would contribute more to the total vanadium intake than the default value suggested.

Appendix 1. Methods for Determination of Notification Levels

DHS' notification levels indicate concentrations of unregulated contaminants in drinking water that are considered to pose no adverse health risk.

When risk assessments have been done by other agencies for other purposes, DHS generally relies upon those assessments to establish action levels. For example, theoretical *de minimis* cancer risk levels for certain contaminants can be determined from regulatory levels established by the Office of Environmental Health Hazard Assessment (OEHHA), or from the US EPA's Integrated Risk Information System (IRIS). Action levels for non-carcinogens can be derived from no observed adverse effect level (NOAELs) and uncertainty factors (UFs) in IRIS. In some cases, US EPA Region 9's Preliminary Remediation Goals (PRGs) can be used to identify NOAELs and UFs in assessments done by other organizations within US EPA, such the National Center for Environmental Assessment.

On occasion, DHS may ask OEHHA for its views on specific information from IRIS or PRG tables and the derivation of an action from them. When a risk assessment for a specific chemical of drinking water concern is lacking, DHS may request OEHHA to develop an assessment for use as a notification level.

The methods used to determine notification levels are consistent with those used for the determination of pubic health goals for contaminants in drinking water by OEHHA. These methods, used by a number of state and federal regulatory agencies, are as follows:

Non-Carcinogens:

The notification level is the health protective concentration (C) for the contaminant in drinking water, and is determined by the equation:

$$C = (NOAEL \times BW \times RSC)/(MF \times UF \times DWC) \qquad \text{(Equation 1)}$$

Where:

NOAEL	=	the No Observed Adverse Effect Level, in milligrams per kilogram body weight per day (mg/kg-day)
BW	=	body weight, 70 kilograms (kg) as the default adult value
RSC	=	the Relative Source Contribution. The default value = 0.2 (assumes that 20 percent of the exposure is from drinking water, 80 percent from other sources)
UF	=	uncertainty factor, the product of several factors, often 10 for interspecies extrapolation, 10 for differences in individual human sensitivity, 10 for use of a less-than-chronic study, and 10 for inadequacy of data, so that the UF may be from 1 to 10,000, depending on available information
MF	=	modifying factor, to take into account other factors that are appropriate. Unless specifically stated, MF = 1
DWC	=	Drinking Water Consumption rate (2 liters per day, L/day)

Carcinogens:

The notification level is the concentration (C) of the contaminant that poses a theoretical negligible (*de minimis*) cancer risk over a 70-year lifetime, and is determined by the equation:

$C = (BW \times 10^{-6})/(q_1^* \times DWC)$ (Equation 2)

Where:

C	=	concentration (mg/L) posing negligible cancer risk (10^{-6} risk)
BW	=	70 kg
q_1^*	=	upper 95% confidence limit on the cancer potency slope, the "Slope Factor," in $(mg/kg\text{-}day)^{-1}$
DWC	=	2 L/day

Appendix 2. Statutory Requirements

Health and Safety Code §116455
(Chapter 679, Statutes of 2004, AB 2528, Lowenthal)

(a) A public water system shall comply with the requirements of this section within 30 days after it is first informed of a confirmed detection of a contaminant found in drinking water delivered by the public water system for human consumption that is in excess of a maximum contaminant level, a notification level, or a response level established by the department.

> (1) If the public water system is a wholesale water system, then the person operating the wholesale water system shall notify the wholesale water system's governing body and the water systems that are directly supplied with that drinking water. If the wholesale water system is a water company regulated by the California Public Utilities Commission, then the wholesale water system shall also notify the commission. The commission in the exercise of its general and specific powers to ensure the health, safety, and availability of drinking water served by the utilities subject to its jurisdiction, may order further action that is not inconsistent with the standards and regulations of the department to ensure a potable water supply.
>
> (2) If the public water system is a retail water system, then the person operating the retail water system shall notify the retail water system's governing body and the governing body of any local agency whose jurisdiction includes areas supplied with drinking water by the retail water system. If the retail water system is a water company regulated by the California Public Utilities Commission, then the retail water system shall also notify the commission. The commission, in the exercise of its general and specific powers to ensure the health, safety, and availability of drinking water served by the utilities subject to its jurisdiction, may order further action that is not inconsistent with the standards and regulations of the department to ensure a potable water supply.

(b) The notification required by subdivision (a) shall identify the drinking water source, the origin of the contaminant, if known, the maximum contaminant level, response level, or notification level, as appropriate, the concentration of the detected contaminant, and the operational status of the drinking water source, and shall provide a brief and plainly worded statement of health concerns.

(c) For purposes of this section, the following terms have the following meanings:

> (1) "Drinking water source" means an individual groundwater well, an individual surface water intake, or in the case of water purchased from another water system, the water at the service connection.
>
> (2) "Local agency" means a city or county, or a city and county.
>
> (3) "Notification level" means the concentration level of a contaminant in drinking water delivered for human consumption that the department has determined,

based on available scientific information, does not pose a significant health risk but warrants notification pursuant to this section. Notification levels are nonregulatory, health-based advisory levels established by the department for contaminants in drinking water for which maximum contaminant levels have not been established. Notification levels are established as precautionary measures for contaminants that may be considered candidates for establishment of maximum contaminant levels, but have not yet undergone or completed the regulatory standard setting process prescribed for the development of maximum contaminant levels and are not drinking water standards.

(4) "Response level" means the concentration of a contaminant in drinking water delivered for human consumption at which the department recommends that additional steps, beyond notification pursuant to this section, be taken to reduce public exposure to the contaminant. Response levels are established in conjunction with notification levels for contaminants that may be considered candidates for establishment of maximum contaminant levels, but have not yet undergone or completed the regulatory standard setting process prescribed for the development of maximum contaminant levels and are not drinking water standards.

(5) "Retail water system" means a public water system that supplies water directly to the end user.

(6) "Wholesale water system" means a public water system that supplies water to other public water systems for resale.